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**ABSTRACT**

The results of the secondary analysis of data obtained in a study of Head Start graduates in the public schools are summarized in this report. Due to unforeseen circumstances, the original longitudinal research design was not fully implemented, and the study was constrained to one administration of a test battery to first-grade students. The primary analyses of that data are reported in "A National Survey of Head Start Graduates and Their Peers" (ED 152 422-423); it is recommended that both the original study and the secondary analysis be read sequentially for a coherent picture of the full study. Questions addressed in the secondary analysis focus on (1) Head Start curriculum emphasis, (2) ethnic composition of families served by Head Start, (3) ethnic composition of staff participating in Head Start, (4) Head Start Center sponsoring organizations, (5) parent involvement in Head Start, (6) preschool experiences of children who did not attend Head Start, (7) performance of Head Start children in public schools, (8) teacher perceptions of Head Start children, (9) interrelationships among predictors of child outcomes, (10) characteristics of high-income Head Start families, (11) parent characteristics associated with parent involvement, and (12) length of enrollment as a factor in child outcomes. In conclusion, main results of the transitional study are summarized. (Author/RH)

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EDUCATIONAL RESEARCH AND EVALUATION

Executive Summary of

SECONDARY ANALYSIS OF THE DATA  
FROM THE EVALUATION OF THE TRANSITION  
OF HEAD START CHILDREN INTO PUBLIC SCHOOLS

November 28, 1980

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## EXECUTIVE SUMMARY

### Introduction

In July 1975, the Office of Child Development, DHEW, awarded a contract to Abt Associates to carry out a study entitled Evaluation of the Transition of Head Start Children into Public Schools. This was to be the first national study of Head Start graduates in the public schools since the Westinghouse/Ohio study of 1969. Since the goal of the study was the identification of the contribution of Head Start to the performance of Head Start children in the first year of public education after Head Start, the study design called for four data points: the beginning and end of the Head Start year and the beginning and end of the first year of public school. It was expected that a Head Start experience would significantly change a sample of children intellectually, affectively and motivationally. If such changes occurred, it was also expected that they would persist into the public school careers of the Head Starters and be visible at the end of the first post Head Start year.

The Abt contract also called for the selection of a representative sample of Head Start centers and children. The goal was to generalize the findings to the widest possible audience so that accurate sampling was a highly desirable function. In addition, the goal of the Transition study included a description of the programs offered in Head Start, a description of the parents, centers, and center staff, and a description of parental attitudes toward and participation in Head Start.

The plan for achieving these goals focused, therefore, on the development of an extensive and representative sample of children, centers, and regions involved in the national populations of Head Start. It also included a full battery of instruments designed to measure the cross-sectional pic-

ture of centers and parents, and instruments designed to measure the change in performance of children over time. The analytic design was constructed to allow for examination of the change in children and to assess the extent to which any changes observed over time could be attributed to the Head Start experiences of the children and the parents. There was no provision for assessing the character of the public school experience as a factor in the growth of the children because this would be an extremely complex and expensive task. The plan was to deal with the separation of Head Start effects from public school effects by statistical and aggregation techniques rather than by design techniques.

This was a substantial and technically sound approach to a complex problem. It was not, however, able to be accomplished in its entirety for reasons beyond anyone's control. Problems of cost limitations, unavoidable delays in getting plans through the myriad steps of review and approval, and a series of disastrous snow storms throughout much of the testing times, produced a shift from a longitudinal analysis of children's growth to a single data point design. The study was constrained to the administration of the children's test battery just once during the late fall to early winter of the first public school year.

The analyses carried out, along with a full description of the issues raised above, are reported in detail in the Abt report (Boyster, E. C., and Larson, J. C. Report AAI-78-7 A National Survey of Head Start Graduates and Their Peers.), presented to OCD (now Administration for Children, Youth and Families) in March, 1978. In general, it was reported that Head Start graduates, and in particular Black Head Starters, performed at a somewhat higher level on a standardized achievement measure, that public school teachers tended to rate the Head Start children as more active in social and non-social ways, and that parents of Head Start children were quite favorably disposed toward Head Start and showed that disposition by becoming involved with the centers and the staff.

These findings are extremely useful in expanding the knowledge base of Head Start but do not by any means exhaust the issues which might be addressed in examining the data base developed by the Transition study. A continued consideration of the potentials of that base led ACYF to issue an RFP in late spring of 1978 to carry out a secondary analysis of the Transition data. The focus of the RFP was a series of issues which ACYF identified as the most useful for policy considerations. The work of the secondary analysis was defined as an extension of the original analysis so that the original and the secondary analyses taken together could represent a relatively thorough utilization of the data base.

In September, 1978, a contract was awarded Virginia Tech to do the secondary analysis. The work which was done follows the issues identified in the RFP as closely as possible. The work reported here represents the consideration given to the issues of interest to ACYF as an extension of the work done in the original analysis. In order to acquire a coherent picture of the full Transition study, both the original and the secondary analysis have to be read in tandem.

The major section of this report is the presentation of the answers to each question, a technical discussion of the process of acquiring those answers, and some conclusions about each set of answers. Each question can be read independently of the others, although all should be read along with the original report in order to get the full sense of the Transition data base.



## Research Questions

### Question 1: Head Start Curriculum Emphasis.

Center directors were asked in the Head Start Center Questionnaire to describe the activities of their centers. Although most of the directors agreed on the goals of their centers, a good deal of variability of activities was reported. What are the differences in activities which take place in the sampled centers, with what other characteristics of the centers and parents are these activities associated, and what effects on children might these activity differences have? In order to examine these issues, the reports of the center directors were analyzed and three activity emphases were identified: activities which encouraged academic growth; activities which encouraged social development; and dramatic/expressive play activities. Each center was scored for the relative emphasis placed on each of the domains of activities.

Do the activity emphases at individual centers vary according to the family background of the children attending them?

There appears to be no relationship between family income or mother's education and the kind of activity which is emphasized in the Head Start in which the child is enrolled.

Do the activity emphases vary according to the family ethnicity?

Yes. Centers which have a predominantly Black enrollment (70% or more Black) emphasize academic activities much more than centers which have a predominance of white children.

On the other hand, centers with predominantly Black children do not emphasize dramatic/expressive play activities as much as other centers. Predominantly Black and predominantly White centers emphasize social development activities equally.

Do the activity emphases in centers vary according to the ethnicity of the staff and the ethnic match of staff and children?

Yes. Centers in which 70 percent or more of the children and of the staff are Black strongly emphasize academic activities, whereas centers in which 90 percent or more of the children and the staff are White report the least emphasis in these activities. On the other hand, Black centers (70 percent or more of both children and staff are Black) show the least emphasis on dramatic/expressive play activities. Those centers in which no race is predominant among the children enrolled in the center or the staff tend to emphasize social knowledge and skills activities.

Do activity emphases in centers vary by region or city size?

Centers in the Southeastern and Southwestern regions show the strongest emphasis in academic activities; centers in the Northeastern and Western regions show the least emphasis on this activity. Southeastern centers reported slightly higher emphasis on social activities. Finally, Northeastern and Western centers are described as strong in dramatic/expressive play, whereas Southeastern centers generally are in the lowest two quartiles with respect to this activity.

In terms of city size, rural and farm based centers are the only groups which report a single consistent emphasis. These centers emphasize dramatic/expressive play, and exhibit relatively little tendency toward academic emphases.

Do activity emphases vary by center auspices?

To a small extent. Centers sponsored by Community Action Agencies are equally divided into groups which strongly emphasize academic activities, social activities, and dramatic/expressive play. Among the centers which are sponsored by local public schools, half strongly emphasize social activities while the remainder do not emphasize these activities. Centers sponsored by nonprofit groups tend to emphasize dramatic/expressive play activities while not emphasizing social activities.

Do activity emphases in centers vary by the kind of training available for the staff?

Centers which concentrated their training activities in university-sponsored training sessions were those which reported strong emphasis in dramatic/expressive play activities. No other relationships between the kind of training available and activities in the center are observable.

Do activity emphases in centers vary by the parental attitudes and expectations which parents exhibit toward the center or toward children?

Yes. Parents whose children attend Head Start centers

which strongly emphasize academic activities tend to have more negative attitudes toward public schools than parents whose children attend other centers. Parents whose children attend centers which emphasize dramatic/expressive play have the highest scores on the Positive Perceptions of Teachers Scale and generally have positive attitudes toward school.

Do activity emphases in centers vary with parental involvement in the centers?

Yes. There is a tendency for (1) parent helping at the center, and (2) parent talking to the teachers to be lower in centers which place strong emphasis on academic activities than in centers which place a weaker emphasis on such activities.

Do activity emphases in centers produce differential outcomes in child performance on achievement tests or affective/social behaviors?

There is no significant contribution of the activity emphases in centers to the performance of children in kindergarten. When activity emphases are modified by the length of time children attended Head Start, just one finding emerges. The longer children attend centers with academic emphases, the higher the scores on one of the eight achievement scores (viz. naming letters). A few other impacts of the relationship between length of attendance and type of activity on various outcomes were noted in each of the different regions of the country although no consistent trend emerged. (See Question 7 for a full discussion of these findings.)

In respect to the affective/social outcomes, there is a consistent relationship between the amount of emphasis given to expressive/dramatic play activities and the development of assertiveness in Head Start children. In three of the four regions of the country, those centers which emphasized expressive/dramatic play had graduates who were judged to be significantly more assertive than the graduates of centers not emphasizing these activities.

Question 2: Ethnic Composition of Families Served by Head Start

The original analyses indicated that Head Start centers varied with regard to the ethnic mix of the families enrolled. A number of important issues about the sources of such variation, the continuity (or discontinuity) of ethnic mix across Head Start and the public schools in which the Head Start children enrolled, and the consequences of these various kinds of ethnic experiences were not considered in the original analyses. The purpose of the present analyses is to provide a more detailed examination of the characteristics of centers with different ethnic mixes and the relationship between center ethnic mix and the public school classroom mix. In addition, the present analyses considers the effects of ethnic mix on child academic and social development, peer adjustment, and parental attitudes toward the public schools.

In order to consider these issues, the ethnic mix of both centers and the public school classrooms were categorized in terms of percent of various ethnic groups. The following categories were used:

1. 90% or more of one ethnic group= homogeneous group, referred to as a Black center or a White classroom, as the case may be.
2. 70-100% of one ethnic group= predominantly one ethnic group, referred to as predominantly Black, or predominantly White as the case may be.



3. Atleast 50% of one ethnic group= majority of one ethnic group.
4. No predominant group= group in which no ethnicity achieves more than 50% enrollment. This occurs when two ethnic groups are equally represented, or when there are three ethnicities represented in the groups, none of which achieves 50% of the total.

The ethnic groups reported here are Blacks, Whites, and Other. This latter category is almost exclusively Hispanics. Although the Hispanic children are reported in the summary tables according to their country of origin (Puerto Rico, Cuba, or Mexico), for analytic purposes they have been combined into one group. Since the analyses were separately performed within the several geographic regions of the country, there is very little overlap between Puerto Rican, Cuban or Mexican-American children in the analyses.

What are the racial/ethnic mixes of the public school classes into which the Head Start children enter?

Approximately two-thirds of both Black and White children attend a public school class with a predominance (at least 70%) of children of their own ethnic background (Table Q2.1). That is, 56.4% of all Black Head Start children attended kindergarten classes with 90% or more Black children in them, and 11.7% of all Black children attended kindergarten classes with 70% or more Black children. Similarly, 54.4% of all White head start children attended kindergarten classes with 90% or more White children in them, and 13.5% of all White children attended kindergarten classes with 70% or more White children. In addition, 63.7% of the Black Head Start children attended centers with 90% or more Black children in them. Of these children, 51.1%

attended kindergarten classes with 90% or more Black enrollment. As in the case of the Black children, a majority (53.1%) of the White children attended centers with at least 90% White children. Of these children 60.0% attended kindergarten classes with 90% or more White children.

Are there systematic differences in child outcome measures between the children from centers with different racial/ethnic mixes?

There are no systematic differences in child outcomes, with respect to reading, math or social measures which can be attributed to differences in the ethnic composition of centers.

When Head Start children enter elementary school classes with racial/ethnic composition different from the Head Start center do they experience any problems of peer adjustment as measured by the Schaefer Hostility/Tolerance and the Bellar Aggression rating scales?

When comparing children who encounter continuity in ethnic composition of Head Start Center and elementary school class with children who attended an elementary class with a different ethnic composition than their Head Start Center, there are no apparent differences on either of the peer adjustment measures. It should be noted that 79% of the children maintained continuity of ethnic composition from

their preschool situation to their elementary school class.

Are there differences in parental attitudes toward school, or educational aspirations or expectations, which are associated with ethnic composition of centers?

In general, parents with children in 90% or more Black or 90% or more White centers expect that their children will acquire more education than other parents. Parents of children who attended 90% or more Black centers tend to show more external locus of control than do other parents and to have more negative attitudes toward public schools. Parents of children who attend White centers have positive attitudes toward school, but do not view education as a means for upward mobility or as a method to perpetuate social traditionalism.

Question 3: Ethnic Composition of Staff Participating in Head Start

The original analysis of the distribution of staff ethnicity within staff positions indicated an almost equal representation of Black and White staff (47.3% and 44.4% respectively), and the ethnic compositions were generally equal at all staff levels. However, the degree to which there is ethnic representativeness across staff levels within centers was not addressed. It is therefore the task of this secondary evaluation to examine the data relevant to the issue of ethnic representation within centers at all levels of staffing.

To what extent are staff with different ethnic backgrounds represented at the staff level within individual centers?

Although there are relatively equal percentages of Blacks and Whites found at all levels of center staffing in the total group of centers, when staff ethnicities of individual centers are examined, three-fourths of these centers tend to be composed of 80 to 100 percent of a single ethnic group.

For those centers which have a racial/ethnic mix at the staff level, are there systematic patterns of ethnic staffing or do different ethnic staff tend to be distributed across all levels (e.g., supervisor, teacher, aide)?

The composition of staff within individual centers tends to be of a single ethnic group across all staff levels. In centers where some racial/ethnic mix of staff does occur, there is no systematic pattern of ethnic staffing. There are occasional instances of White teachers working with Black aides, or Black teachers working with White aides.

Are there systematic patterns of ethnic staffing across types of sponsorship?

Centers under the auspice of local Community Action Agencies (CAA's) utilize staffs with a great variation in racial/ethnic mix, while public school operated centers tend to utilize White staffs and the remaining centers tend to employ Black staffs.

Does the staff composition generally match the ethnic composition of the Head Start children for individual centers? Do those centers without a match tend to be located in any particular region or in any community type?

There is a strong consistent match between the ethnic composition of staff and children in individual centers in this sample. Where non matches do occur, the typical situation is of an ethnically integrated staff serving either an all Black or all White group of children. A few instances of non match between staff and children showed an all White staff serving a mixed group of children. These few non matches are not systematically found in any particular region or community type.

Question 4: Head Start Center Auspices

The Head Start programs sampled in the transition study were sponsored by Community Action Agencies, Nonprofit Agencies, Public Schools, College, Religious organizations, and others. In this project, the relationship of auspices with center programs, parent attitudes and behaviors, and child outcomes are considered.

Are center auspices distributed equally in all regions of the country?

No. Centers sponsored by Community Action Agencies are found in all regions and in all community types (Table Q4.1). Although they are generally in the majority, it is in the Southeastern section of the country where they account for a minority of centers. Public schools sponsor Head Starts in all regions but are found only in the medium and large cities in these regions and not found at all in small towns or rural areas. The remaining sponsors are found in very restricted segments of the country.

Are there major differences in the family background of the participants across different program sponsorships?



There are significant differences in the socio-economic status of parents enrolling their children in Head Start Centers under different auspices. Higher per capita incomes are found for parents with children in centers operated by CAA's and religious or nonprofit groups, while lower per capita incomes are found for parents with children enrolled in centers run by colleges or universities or the public schools. This pattern, however, also reflects differences in socio-economic status associated with different regions of the country. Very few CAA sponsored centers are found in the Southeast and no religious groups from that region emerged in the sample. Conversely all of the university based centers are in the Southeast whereas most of the non-profit agencies are located in regions with generally higher incomes than in the Southeast. It is likely that the auspices of the center in which a child is enrolled is determined by the regional conditions in which the child lives rather than by any choice process of parents or centers.

Are there variations in program activities in centers under different sponsorships?

To a small extent, centers sponsored by Community Action Agencies are equally divided among those which emphasize academic activities, those which emphasize social activities, and those which emphasize dramatic/expressive play. However, among centers sponsored by public schools, half emphasize social activities and the other half have no discernible activity emphasis. There is not enough data to reliably describe the activity emphases in the centers sponsored by other agencies.

Are there differences in staffing patterns across different types of sponsorship?

The racial/ethnic mix of staff in CAA operated centers were very diverse with comparable numbers of these centers having predominantly White staffs, predominantly Black staffs, or staffs with some racial balance. Centers sponsored by public schools had either predominantly White staffs, or racially balanced staffs. Centers under the auspices of colleges or universities or unspecified auspices, all of which were located in the Southeast, were staffed by Blacks.

Are there differences in staff and parent training across different types of auspices?

There is very little variation among center sponsorships with regard to teacher or parent training opportunities. Regardless of the type of sponsorship, both teachers and parents had opportunities to attend inservice teaching sessions by supervisors or consultants. Teachers also had the opportunity to attend classes at local colleges to better their teaching skills.

Are there differences in child outcomes in programs under different sponsorship?

There is no discernible effect on any of the academic or affective outcomes associated with the auspices of the Head Start centers.

Are there differences in parental attitudes toward schools across different types of sponsorships?

Parents with children enrolled in centers operated by colleges or unspecified auspices tend to have a more negative attitude toward school. This pattern probably reflects

some regional differences since all centers in this group are found in the Southeast. Generally, the attitudes of parents toward schools do not differ significantly across types of sponsorship.

Are there differences in parent educational aspirations and expectations for their children across different types of sponsorship?

There is no difference in parents' perceptions of their child's ability or performance in school with respect to different types of sponsorship. However, parents with children enrolled in public school operated centers tend to have somewhat lower educational aspirations for their children.

Do teachers' perceptions of Head Start children differ under different types of sponsorship?

No. Although public school teachers' perceptions (summarized in the two scales called "All American" and "Assertiveness") differentiates sharply between children who go to Head Start and those who attended other preschools (or no preschool at all), these perceptions are not at all differentiated by the sponsorship under which the Head Start children attended preschool.

Is parent involvement different in Head Starts under different sponsorships?

Yes. Parents whose children attended either Community Action Agency or public school sponsored centers tend to participate at the Head Start center or talk with their children's teachers more often than parents who attended centers under other kinds of sponsorship.

### Question 5: Parent Involvement in Head Start

One of the major components of all Head Start programs is parent involvement. This project focused on four measures of parent involvement: (1) parent involvement at the Head Start Center, (2) parent involvement with the child's teacher, (3) parent involvement with other parents, and (4) parent involvement with the child in the home. These measures have been examined in relation to several characteristics of Head Start families and Head Start Centers.

Do the patterns of parent involvement vary according to family background?

Ethnicity and socio-economic status are related to certain indices of parent involvement. White parents tend to participate in Head Start activities and talk with their child's teacher more often than Black parents. Black parents, especially those of first graders in the Southeast, tend to help their children with school work more frequently. Parents with higher socio-economic status, as evidenced by per capita income and mother's education, tend to help at the Head Start Center and talk with their child's teacher more often than those of lower socio-economic status. Family configuration, including the size of the family and the number of adults in the home, as well as the employment status of parents fail to show a relationship with any of the indices of parent involvement.

What is the relationship between the type and frequency of parent involvement in Head Start and parent's attitude toward school?

Parents with a negative school attitude who believe they could do little to improve the school tend to be less involved in Head Start. However, children of parents with a

negative school attitudes tend to ask for more help from parents in the home.

Do the patterns of parent involvement vary according to region or community type?

Parents in the Southeast tend to be less involved in Head Start activities and interact less with their child's teacher than those in other regions. A higher percentage of parents living in the West help out at the Head Start Center at least once a week than elsewhere. However, the number of times parents were asked by their children to help with school work at home was considerably higher for parents in the Southeast.

With respect to community type, there is little variation in rates of parent involvement for any of the indices.

Does the type and frequency of parent involvement vary under different program sponsorship?

Parents of children who attended Head Start Centers operated by public school or local Community Action Agencies participated more in Head Start activities, talked more frequently with the child's teacher, and were asked for help on homework less frequently than parents of children who attended Head Start Centers operated under other auspices.

Does the type and/or frequency of parent involvement in Head Start and in public school differ according to the center's racial/ethnic mix?

Parents of children enrolled in Head Start Centers with a predominantly white enrollment tend to help at the Head Start Centers more frequently, communicate with their



child's teacher more often, and are asked to help their children with school work less frequently than parents of children who attended predominantly Black Head Start Centers or centers with a racial/ ethnic mix.

Is the type and/or duration of parent involvement related to child outcome measures? If so, how and for which outcomes?

There is no systematic relationship between type and/or duration of parent involvement and child outcome measures.

Is the type and/or duration of parent involvement related to the learning environment and learning materials found in the Head Start children's homes? If so, does the relationship change with different family backgrounds?

There is a strong positive relationship between the number of educational materials and books found in the home and the parent's involvement in Head Start activities and with the child's teacher. These relationships hold true regardless of the family's ethnic background or its socio-economic status.

Are the home learning materials related to the child outcome measures? Does this vary with family background?

There is a relatively strong positive relationship between the number of educational materials found in the home and several child outcome measures. Although the strength of these relationships varies with respect to region, the relationship between educational materials in the home and

three outcomes, Copy Marks and Oral Math I and II, remain positively related across all regions. These relationships remain significant when socio-economic status is held constant.

Question 6: Preschool Experience of Non-Head Start Children

In the original analyses, almost half of the non-Head Start children had experienced some kind of out-of-home preschool. In addition, many Head Start children had some kind of preschool experience before entering Head Start. The present analysis identified 1034 Head Start children in the data base, of whom 121 had some preschool in addition to Head Start. Also identified were 555 children who did not go to Head Start (i.e., the comparison children). Of these, 211 attended some kind of preschool before entering the public schools. The present study examined these four groups of children (Head Start children with and without some other experiences, and non-Head Start children with and without some kind of preschool experience) on a number of dimensions. Reported in this section are the comparisons with respect to the kind of non-Head Start programs they attended, their family backgrounds, and the perceptions of these groups of children held by their public school teachers.

What type of program did the non-Head Start children attend? What type of program did these Head Start children with other preschool experience attend?

The predominant preschool experience for the non-Head Start children was a nursery school (46%), with day care (30%) the second most predominant. This was reversed for the non-Head Start experiences of Head Start children who had attended some other preschool before Head Start. For these children the predominant non-Head Start experience was

day care (46%) and then nursery school (25%). This may reflect the higher per capita income of non-Head Start families (see below) for whom day care may not be as intensely needed as Head Start families.

How long did the children in this sample attend their respective preschools?

Only Head Start children tend to have a one year experience in preschool with relatively little variability around that figure.

The children who attended preschool before enrolling in Head Start fall into two groups: a) Those who had just one year including Head Start and some other experience, and b) Those who had 6-12 months of some other preschool and then a full year of Head Start.

Non-Head Start children who attended some other preschool program also fall into two groups: a) Those who attended for one year or less and, b) Those who attended for 1-2 years.

The length of enrollment in preschool is a factor which distinguishes between Head Start children and non-Head Start children. The latter group showed much greater variability in the length of their preschool experience than the Head Start children.

What differences are there in family background between Head Start, non-Head Start, Head Start plus other preschool experiences, and no preschool groups?

The Head Start-only families in this sample had the low-

est per capita income of all groups. Within the Head Start group, those families who sent their children to an additional preschool had a slightly higher per capita income than the Head Start-only families. The non-Head Start families were all significantly higher in per capita income than the Head Start families, but those who sent their children to some other non-Head Start preschool had the highest per capita income of all groups in the study. Those non-Head Start families who did not send their children to any preschool also had significantly higher income than the Head Start families, but a little lower income than the families who sent their children to some non-Head Start program.

The Head Start families include mothers with the lowest level of completed education. Families who sent their children to other, non-Head Start preschools are among those with the highest levels of completed education of the mothers. The non-Head Start families with no preschool fall in an intermediate position of educational achievement. Non-Head Start families with preschool have the highest level of mothers who completed high school and had more than high school backgrounds.

In general, there is significant differentiation between Head Start families and non-Head Start families despite the fact that all of the children selected were from the same public school classes. Clearly, within the same communities, Head Start families come from a lower-SES than families who send their children to other kinds of preschools. Indeed, in the communities selected for this study, Head Start families are in a lower SES than families who chose not to send their children to any preschool program before kindergarten.

The ethnic differences among the families in this sample appear to be tied to the economic differences among them. Families which send their children to Head Start (with or without some other kind of preschool experience before Head Start) are predominantly Black families but with a moderate

(one third to one quarter) number of White families. Those in the non-Head Start groups are very heavily White. Elsewhere in this report, it has been found that the Black families in the present sample tend to be larger, with lower income, and with less education for the mother than White families and that, with the present findings added, tend to be in Head Start rather than non-Head Start preschool programs. The White families who send their children to Head Start have considerably lower incomes and less mothers' education than the White families who send their children to other preschools.

Are the children in these preschool categories equality distributed across regions?

The regional distribution of Head Start children is distinct from that of other children in this sample. Approximately two-thirds of the Head Start-only children are located in the eastern section of the country, equally divided between Northeastern and Southeastern sections. The pattern of preschool attendance which includes some other preschool first and then enrollment in Head Start is significantly underrepresented in the Northeast and is over represented in the Southeast. This is probably a reflection of the lack of kindergartens in the Southeast. Most (see below) of the Head Start children in the Southeast are one year older and enrolled in first grade rather than kindergarten compared to the Head Start children in the rest of the country. Therefore, the preschool experience of the Head Start children (predominantly Black) of the Southeast was a kindergarten level experience. This meant that any prekindergarten experience for these children would be in addition to Head Start. Thus, the Head Start plus other preschool group of children are primarily Black, primarily from the Southeastern section of the country and primarily



older than other Head Start children. They would have been tested for this study in their first grade rather than in their kindergarten.

Are there differences in the type of play material in the homes of the Head Start, non-Head Start with and without preschool and non-preschool groups?

Of the dozen play materials which were mentioned in the parent interview, Head Start families reported a presence of only three categories of materials in the same proportion as non-Head Start children, or even children who did not go to preschool. It was only in the presence of crayons and paper, hammer and nails, and catalogues and magazines that Head Start homes were equal to non-Head Start homes. The categories of play materials which were found significantly less often in Head Start homes than in all the other homes included: plants, put-together toys, play dough, magic markers, puzzles, scissors. It should be noted that families who did not send their children to any preschool reported the presence of these toys and materials to a significantly greater extent than the Head Start families.

Are there differences in the amount of verbal interaction between parents and children in Head Start and non-Head Start families? Is there a difference in the pattern of TV watching?

There is no difference in the rates of verbal interaction reported by the several categories of parent in this sample. There is a difference, however, in the pattern of TV watching. The Head Start children are described as watching TV more often than any other group (almost 40% watch more than

3 hours every day), and the Head Start plus other preschool watch TV the least often (40% watch no more than a few hours each week). Once again, this difference between the Head Start only and the Head Start plus other groups may be a reflection of the older age of the latter groups and the fact that they were attending first grade rather than kindergarten at the time of the study. First graders may have less time for TV than kindergarteners.

Are there differences in parental expectations among the families of Head Start and non-Head Start children?

There are essentially no differences in the expectations which parents hold about the success their children will have in school. Three quarters of all parents expect that their children will perform from "average to good" in public school. However, Head Start parents expect their children to complete their education when they graduate from high school whereas parents who send their children to other preschool expect their children to attend a four year college. The parents of children who did not attend any preschool have an educational expectation pattern which is very similar to that held by the Head Start parents. These differences are related to family income in a very specific way. The higher the income, the further the child is expected to reach in education. However, income is not related to the parents' expectations of how well the child will do in school. Essentially the same finding is present with respect to the ethnicity of the family. Whites expect their children to go further in school than Blacks, but there is no difference in how well they expect their chil-

dren to perform in school.

How do the public school teachers perceive the Head Start children compared to the non-Head Start children? Are these differences related to family background?

Public school teachers were asked to rate all sample children on a series of scales which were statistically combined into two dimensions as follows:

1. Socially mature, popular with peers, and academically motivated (called, "The All American Child" scale).
2. Assertive, protective of rights, enjoys the company of adults and children (called "Assertiveness scale").

There are regional differences in the ratings given to children by public school teachers. Teachers in the Northeastern and Southeastern sections of the nation rated all children significantly lower on the All American scale than teachers in the Western sections of the country. However, only the children in the Southwest were rated low on Assertiveness by their teachers. Whites were always rated higher on the All American scale and lower on the Assertiveness scale than the ratings given to Black and other minority children.

Despite these regional and ethnic differences in teacher ratings, there are real, and independent differences in these ratings of children depending upon the preschool experience they acquired. These differences follow Head Start, non-Head Start distinctions consistently. Head Start children (with or without other preschool experience) are significantly lower in the ratings they receive on the All

American scale (non-Head Start children who go to preschool receive the highest ratings on this dimension). At the same time, Head Start children (with or without other preschool experience), are rated as significantly more Assertive than non-Head Start children (children with no preschool experience are rated as the least Assertive of all groups).

These ratings by public school teachers are also related to the family background of the children in very unique ways. Income, mothers' education and the amount of academically stimulating materials/activities which go on in the home are all positively related to scores on the All American scale but bear no relationship with scores on the Assertiveness scale. Assertiveness appears to be a property which public school teachers perceive in Head Start children regardless of the family background (except for the Head Start children in the Southwest where cultural factors in the family may mitigate against assertive behavior).

Question 7: Performance of Head Start Children in Public Schools.

The initial analysis of the transition data showed that some effects on academic and social development associated with Head Start attendance could be discerned. The present analyses continued examining some of these issues to determine if Head Start effects are distributed equally across regions of the country, are associated with the kinds of activity emphases that were offered in different Head Start centers, are associated with family background factors, or are associated with patterns of parent involvement in the Head Start centers.

Are Head Start effects distributed equally across regions of the country?

There is one effect, strongly associated with Head Start rather than with any other kind of preschool experience, which is found in all regions except the Southwestern section of the country. This pervasive effect is reflected in the measure called "Assertiveness" which is derived from public school teachers' ratings of their children. These teachers rate Head Start children as more assertive than the other children in their classes in the Northeastern section of the country where most of the Head Start children and their comparisons are White, in the Southeastern section where most of the Head Start children and their comparisons are Black, and in the Western section where there are relatively large numbers of both Black and White Head Starters and comparison children. The Southwestern section of the country has a preponderance of "Other" (Hispanic and Native American Indian) children in Head Start, and there the public school teachers did not see Head Start children as any more Assertive than other children.

Performance on the Wide Range Achievement Test (WRAT) indicated few effects attributable to Head Start and these few were scattered over just two of the regions. In the Southeast section of the country (primarily a Black Head Start group contrasted to a Black comparison group all of whom were first graders rather than kindergarteners), Head Start children were significantly ahead of the comparison group on one of the math subtests (oral arithmetic) and were slightly ahead on another mathematics subtest and a visual/motor task involving copying marks. In the Southwestern section, the Head Start children (heavily Hispanic and Native American Indian) were significantly better than the comparison children on the copying marks subtest and tended to be ahead on counting dots. Note that the Head Start centers in both the Southeastern and the Southwestern sections of the country had the strongest emphasis on aca-



ademic activities of all the centers in the country.

Are the outcomes of Head Start associated with the kind of activity emphases that were offered in the different centers?

Although centers which emphasized academic activities tended to be concentrated in the Southeastern and Southwestern sections of the country (2-3 of the 8 WRAT subtests showed slightly higher scores for the Head Start children), the trends were not stable enough to suggest a significant relationship between the kind of activities which were emphasized in a center and the overall performance of the Head Start children on the WRAT in public school. However, when the length of time a child attended Head Start prior to entering public school is considered, academic activity emphases do show an effect. The longer Head Start attendances are associated with significantly higher scores on the "Naming Letters" subtest on the WRAT, when that attendance occurs in centers which emphasize academic activity.

A few trends within some regions are discernible, which may reflect the unique socio-educational processes in those regions. Head Start centers in the Southwest which emphasize academic activities show higher performance on "Letter Recognition" than centers in the Southwest that do not emphasize academic activities. This is not found elsewhere and may be unique to these children. At the same time children who graduate from Southwestern centers which emphasize social development show significantly higher "Spelling and Reading" scores than children who graduate from Southwestern centers that do not emphasize social development activities. However, the effect of this activity emphasis in the Northeastern centers is lower performance on some reading and mathematics subtests. Finally, Southwestern centers which emphasize dramatic/expressive play activities have children



with significantly lower scores on "Spelling and Reading" whereas exactly the opposite effects are found among children who attended Southeastern centers emphasizing dramatic/expressive play activities.

In terms of social-emotional outcomes, it is in the Southeastern, Northeastern and Western sections that consistent effects of activity emphases on outcomes are found. Here, higher center scores on expressive/dramatic play are associated with higher assertiveness scores. It should be noted that the lack of such a relationship between activities and assertiveness in the Southwest is confounded by the fact that relatively low assertiveness scores were found in Head Start children in this region. It is here that most of the Hispanic and Native American children on the data base are found.

Are Head Start effects associated with family background factors?

The most consistent finding related to parental/family background has to do with the social/motivational outcomes of Head Start. These outcomes are based on teacher ratings of children in public schools and have been reduced to two major variables. 1) "All American Child" (high scores indicate that the teacher judges the child to be an independent learner; not introverted; task oriented and persistent; popular with other children; likely to be a high academic achiever; and not conflicted over asking for help), 2) Assertiveness (high scores indicate that the teacher judges the child to be high in enjoyment of and desire to have contact with adults and other children; relates aggressively with others; has a low tolerance for intrusions). There are clear relationships between family background factors and the "All American" scale, and no relationship between these factors and the "Assertiveness" scale. For a full discus-

sion of these social-motivational outcomes, see Question 8 of this Report.

There is a very diverse pattern of relationships among family background measures and the WBAT scores used in the present study. This diversity reflects the regional diversity of the sample which in turn carries a host of cultural, ethnic, and socioeconomic differences. For example, in the Southeast where almost all of the children are Black first graders and where almost 20% of the Black children went to some preschool program other than Head Start, the relationship between the family background measures (mothers' education family income, and a home stimulation index) and the 8 WBAT subtests were generally weak and in some cases negative. However, these relations were considerably weaker for the Head Start children than for the other children in the region, so that this can be considered something of an Head Start effect.

Similarly, in the Northeast where most of the children are White and 20% of them went to some preschool other than Head Start, the relations between the family background measures, and in particular, the home stimulation index, and the WBAT measures are quite high and positive. Here too, the relations are weaker but still high for the Head Start children alone which suggests a possible Head Start effect for these White children as well. However, in the west and in the Southwest, the relations between family background and WBAT are moderate and very much the same for the Head Start and the other preschool (or no preschool) groups in those regions. Generally, there is tendency for higher SES families to have children who perform higher on some of the WBAT measures but this is less true for Head Start children and particularly Head Start children in the Southeast.

Are Head Start effects associated with patterns of parent involvement in the Head Start center?

There is no evidence that any form of parent participation in the center, with children, or with other parent is associated with any of the outcome measures.

Question 8: Teacher Perceptions of Head Start Children

The original analysis of public school teachers' rating of children in their classrooms showed that Head Start children were generally rated higher on some social motivational factors than other children. The interpretation of these findings is difficult until the meanings underlying these ratings are determined. The purpose of the present analysis is to extend the examination of teacher ratings to clarify their meanings, to establish a set of scales that would reliably reflect these meanings, and to determine the relationship between teacher ratings of Head Start children and family background characteristics of the children as well as their academic performance.

In order to deal with these issues, the teachers' ratings of children, as measured by subscales on the Schaefer Teacher Rating Scales and the Beller Teacher Rating Scales, were factor analyzed. Two clear and independent factors emerged. They represent the two major dimensions of meaning which underly the teacher ratings. These factors and their names are:

I. The All American Child, composed of a combination of the following:

- Independence in learning
- Not introverted
- Task oriented
- Popular with other children
- Likely to be a high academic achiever
- Capable of asking for help when needed without fear or guilt

II. Assertiveness, composed of a combination of the following:

Enjoyment of and desire to have social contact with adults

Enjoyment of and desire to have social contact with other children

Aggressively relates to others

Low tolerance for frustration or intrusion.

Utilizing factor scores each child was scored on these two scales to represent teachers' perceptions discussed in the next sections.

Do public school teachers' perceptions of Head Start children vary according to family background? of the children?

Kindergarten teachers tend to perceive children from higher income families in which there is more stimulating materials in the home as higher on the All American Child scale. That is, teachers perceive these children as more popular, persistent, task oriented, high achievers, friendly and outgoing.

On the other hand, teachers do not judge the assertiveness of children according to the character of the family background.

Is there a relationship between teacher perceptions of children and their social and academic performance in kindergarten?

Children who are rated high by teachers on the All American Scale do achieve at higher levels than children who are rated by teachers to be low on the scale. On the other hand, children who are rated high on the Assertiveness scale

have the same distribution of academic scores as children who are rated low by teachers. It is possible that teacher perceptions of children on some properties such as persistence, popularity, and independence are influenced by the family background of the child and in turn influence the academic performance of the child. However, teacher rating of Assertiveness appears unrelated to the family background of the child and has no influence on the academic performance of the child.

Question 9: A Model of Interrelationships Among Predictors of Child Outcomes.

In the original study, a series of outcome measures were analyzed as dependent upon such family background factors as mother's education, family income, and home stimulation variables. In addition, selected measures of parental attitudes and parent involvement were used as predictors. In the secondary analysis, these factors along with measures of Head Start activities are entered into a model of interrelationships to find the most effective set of causal paths to child outcomes. These analyses attempted to answer the following question:

Is there a predominant set of interrelationships among SES factors, parent attitudes, home stimulation measures, parent involvement measures, and the Head Start activities which leads to heightened levels of child outcomes?

There is one set of interrelated factors which lead to small but important effects in a few of the child outcome measures. The set is composed of Head Start as a direct factor in child test performance (the major component of the set), plus Head Start as a contributor to the presence of academically stimulating events in the home which in turn contributes to the performance of the child on the outcome

tests (the minor component of the set). These multiple routes of Head Start toward child performance worked in combination to produce small but important effects in a measure of visual-motor skill (copying marks), in two of the more difficult math subtests, and in the measure of assertiveness constructed for this study. In addition, some of these effects of such interrelated factors are associated with particular activity emphases in the Head Start center rather than with Head Start in general. The strongest of such activity emphasis effects in this model is found with the dramatic/expressive play emphasis. Centers which emphasize dramatic/expressive play show the highest impact on reading, spelling, and assertiveness when these effects are analyzed as part of the causal model used in this study.

Question 10: Characteristics of High Income Head Start Families

In the original study, it was found that the national sample contained a larger proportion of higher income families than was expected. The focus of this analysis is to describe their characteristics and determine the circumstances under which these families are participating in Head Start Programs. Income for this study is viewed in three ways: household income, eligibility, and per capita income. Eligibility was determined by Office of Child Development family income guidelines for 1977. Using household income and family size, these guidelines were matched as closely as possible given the constraints of the categories of household income, to determine if the family was above or below the poverty (eligibility) level.

Are high income Head Start families located in any particular region or community type?

Yes. In terms of household income greater than \$10,000, proportionally more families live in the Southeast and Nor-



theast. The Northeast and Southwest have a higher proportion of families exceeding local eligibility standards. a higher proportion of the highest categories of per capita income (over \$2099) are represented in the Northeast, Southwest and West. The Southeast appears to be more in line with federal guidelines than the Northeast or Southwest.

Except in terms of eligibility, where proportionally more of the ineligibles live in rural communities, there are no community differences attributable to income.

Under what type of program sponsorship are the centers attended by these higher income families?

Consistently across income measures, within the higher household incomes, ineligibility category, and higher per capita incomes, there are proportionally more Head Start families associated with centers sponsored by Community Action Agencies than centers operating under other auspices.

What are the background and demographic characteristics of these families?

Regardless of the income measure, families with higher incomes tend to have mothers educated to a greater degree, to have a greater incidence of both parents working, and to be White to a greater extent than lower income families. Variation in family size is not related to household income, but families with higher per capita incomes and families whose incomes exceed the local eligibility requirements tend to have fewer family members.

What patterns of parent involvement are found among the higher income families?

There is no apparent relationship between income and the number of times a parent met with other parents, the frequency of assisting at the Head Start Center, or the number of times a parent talked with their child's teacher.

What are the parental attitudes toward school? what are parents' educational expectations for their children?

Some parental attitudes are related to income. In terms of household income and eligibility, lower income (less than \$10,000) families and eligible families expressed a more negative attitude toward public schools, and believe more strongly that education is a means for upward mobility than higher income and ineligible families.

However, parents from households with higher incomes tend to have higher expectations and aspirations for their children than parents from households having lower incomes.

Question 11: Parent Characteristics Associated with Parent Involvement

Question 5 of the RFP, which focused on aspects of families and centers which were related to parent involvement, provided an opportunity to contrast two different notions about the sources of motivation for involvement. On the one hand, parental economic and educational status was considered a source of involvement on the assumption that the values which distinguished between parents of different socio-economic statuses would predict motivation to become involved. On the other hand, the assumption was made that all parents were motivated to become involved, but those who had fewer resources in time and energy would tend to be less involved. Resources in time and energy were estimated in terms of the number of adults in the family who worked and who therefore had limited time to become involved. It also

was estimated by the number of adults in the family on the grounds that the more adults present, the greater the resources for in-household child care so that at least one parent could be able to leave the house to attend Head Start activities.

The findings of Question 5 indicated that some measures of in-home resources did predict involvement, along with indicators of SES. In order to examine these contributors in greater depth, the present study considers the complex of parental attitudes, home factors, and SES as interrelated paths toward involvement in the Head Start programs and centers. Note that this issue considers the factors predicting involvement. The alternate issue, the impact of involvement as a Head Start program component on family resources and ultimately on child performance, is considered in Question 9.

Is there a predominant set of interrelationships among SES and attitudinal factors which leads to heightened levels of involvement?

Yes. White parents with somewhat higher incomes tend to have higher levels of involvement if they also have the higher educational attainments which are associated with families who supply more educational materials to children at home.

Question 12: Length of Enrollment as a Factor in Child Outcomes

The analysis of effects of activity variables describing Head Start center programs has been reported in Question 1. In this section, the role of length of enrollment in preschool and the length of enrollment in Head Starts with par-

ticular activity emphases is reported.

Does the pattern of time in preschool vary across regions?

Yes. In the Southeast, where there are no public kindergartens, half of the Head Start children were enrolled for more than a calendar year (i.e., two full school year terms), and half were enrolled for just one full term. In the Northeast and in the West, Head Start children were concentrated to a greater extent in the one full term category (70%), and children in the Southwest were concentrated even more (80%) in the one full term category.

The pattern of enrollment time for non-Head Start preschoolers is considerably different from the Head Start pattern. These children are much more variable in their enrollment lengths: higher proportions of them attended preschool two full terms, and higher proportions of them attended preschool for less than a full term than their Head Start counterparts. Proportionally fewer of these children attended preschool for the typical Head Start enrollment time: just on full term.

Does the length of enrollment in Head Start contribute to the performance of children in academic or affective measures?

To some extent. The few Head Start children in the Southwest and West who were enrolled for two full terms scored higher on a reading and on a math subtest than their counterpart Head Starters who enrolled for either one full

term or less than a full term.

Does the length of enrollment in Head Start programs with particular activity emphases contribute to the performance of children on academic or affective measures?

There is no support for the notion that longer enrollments in centers described by their directors as having particular activity emphases is associated with any higher scores on any of the outcome measures.

## Conclusions.

In addition to the findings and conclusions of the original study, the following comments about the transitional study are presented here.

A. There are some academic achievement effects attributable to Head Start, although these vary over regions of the country. There is some evidence that a complex causal sequence is present in which Head Start has direct academic effects, plus a few indirect effects through its impact on the home conditions of children which then impact on school performance. The indirect route by which Head Start influences academic performance in kindergarten is complex and very likely not fully effective at present. For example, it is clear that a good deal of parental involvement at Head Start centers is now taking place, but much more could be done. It is also clear that a small but important portion of the home environment of some families is influenced by parental involvement at the center, but much more might be done here as well. Finally, it is clear that some aspects of the home environment which Head Start does influence appears to have an effect on some aspects of academic performance of the children in kindergarten. Obviously, each link in this chain needs to be examined more fully since each appears to have some unrealized potential for both parents and children.

B. There is consistent evidence that Head Start children are judged by their public school teachers as more assertive than non-Head Start children. This effect is found in almost all locations and is found significantly more so among Head Start children who attended centers that emphasized expressive/dramatic play rather than other kinds of academically oriented activities.

Assertiveness has been interpreted as a capacity to maintain an active defense of one's status in a complex environment. This capacity may have very important long term ben-



fits to Head Start children as they progress through the public school system.

C. There are very strong regional variations in the effects of Head Start. This suggests that the strategy of large national evaluations may be missing much of the importance to policy planners and to educators. In addition, it is obvious that detailed examination of the nature of the Head Start experiences, as delivered to children and parents in the classroom and home, is required now in order to fully understand how to increase the impact of Head Start. Large studies cannot do this efficiently or inexpensively whereas a strategy of locally based policy studies can accomplish these goals. We conclude that Head Start is ready to shift to a more powerful approach of in-depth local studies and we urge the adoption of such a shift.